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A contribution to the recognition of two Longicorn species *Cerambyx cerdo* Linnaeus, 1758 and *Monochamus saltuarius* (Gebler, 1830) (Coleoptera, Cerambycidae)

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Key words: taxonomy, Coleoptera, Cerambycidae, *Cerambyx*, *Monochamus.*
Abstract: This article describes geographical variability of *Cerambyx cerdo cerdo* Linnaeus, 1758 from the island of Krk. *Monochamus saltuarius occidentalis* **ssp. n.** is described from Czech Republic.

Introducion

During the exams of the entomological collections of the National Museum in Prague I noticed some different specimens of *Cerambyx cerdo* Linnaeus, 1758 from the island of Krk in Croatia. I believe that it is worth consideration. For many years I have called attention to the differences of *Monochamus saltuarius* (Gebler, 1830) from Siberia and Europe, so I decided to describe the western imagoes as a new subspecies. It is analogous to the described subspecies, e.g. *Monochamus galloprovincialis* (Olivier, 1795) or *Monochamus sutor* (Linnaeus, 1758).

Material and Methods

I borrowed some of the imagoes from the collections of the National Museum in Prague and the Staatliche Museum für Naturkunde in Karlsruhe. The comparison measuring was done using the eye piece scale of a microscope Wild. For the photography I used a camera Nikon 7000 with 35 and 105 mm lenses, and a personal computer for other work.

Cerambyx cerdo cerdo Linnaeus, 1758

The ratios of the long antennal segments are said to be the main reliable indicator for distinguishing of the species *Cerambyx cerdo* Linnaeus, 1758 and *Cerambyx welensii* Küster, 1845 from other large species of western Palearctic Cerambycidae (subgenus *Cerambyx* Linnaeus, 1758). In these two mentioned species the second antennal segment is narrow at the base and then widens. The ratio of the length to the width is usually 1:1 to 1.2:1. This applies to the imagoes of ssp. *cerdo*, ssp. *acuminatus*, ssp. i*ranicus*. This antennal segment of imagoes from the island of Krk is usually shorter (0,61-0,72). It is interesting that later I found a similar variability in some imagoes of *C. cerdo mirbecki* P.H. Lucas, 1842 and *C. cerdo pfisteri* Stierlin, 1864. Other species of genus *Cerambyx* have the second antennal segment very short, in comparisson to the width; it creates almost a ring, and its length is approximately 1/3 of the width.

Material. 12 males and females, Croacia, Krk isl., Vrbnik, 8.7.2004 and 5.-8.7.2006, Švec lgt. - National Museum in Prague.

Monochamus saltuarius occidentalis ssp. n.

Figs 6-10

In the publication (Slama, 2015) I stated: When I compared specimens from Far East and Europe (Czech Republic and Austria), I concluded that these are completely different subspecies. It would be advisable to compare typical specimens and materials even from other locations. In my opinion, subspecies from Far East and Europe are very distinct. I am attaching photographs of both forms. It would be certainly appropriate to distinguish imagoes from Far East and European region by naming a new subspecies, but I did not have the opportunity to research the imagos from Gebler's description, so I do not know whether they were from the eastern or the western areas of occurrence.

So far nobody has done that, so I decided to distinguish the different eastern and western forms by naming them ssp. *occidentalis*.

A typical locality is Altaj, Kolyvan. I have not had the

opportunity to compare the type specimen, but M.L. Danilevsky loaned me two imagoes from nearby localities: male Kazakhstan, Ignashikha, Semipalatinsk reg., 23.6.2005 and female Kazakhstan, Stolbukha, Semipalatinsk reg., 18.6.2005, M. Danilevsky leg. He also provided to me other Russian material from Siberia (Tuva republic, Amur and Khabarovsk regions). I had bigger material from region Primorsky (Chuguevka) - Figs 1-5, and Dersu-Iman, which I was primarily using for the comparison. From the examination of various materials, it is obvious that a certain geographical variability occurs in this species, similar to *Monochamus sutor* Linnaeus, 1758 and *Monochamus urussovii* (Fischer von Waldheim, 1805) (but I consider it as a subspecies of *Monochamus sartor* (Fabricius, 1787) (Slama, 2006, and Wallin et al., 2013), or as in *Monochamus galloprovincialis* (Olivier, 1795). I believe that with time there will be described other subspecies from Siberia. I tried to mainly separate the significantly different imagoes from the Czech Republic.

Different characteristics of *M. s. occidentalis* **ssp. n.** from the imagoes of eastern Asia: on average these imagoes are broader; the nominal imagoes are slender; the antennae of males, compared to the body size, are shorter; very pronounced is the sculpture of the antennae; the grain is finer; eastern imagoes have the grain clearly coarse; the first half of the antennal segments has dense light-colored hair; the hair on the nominal form is thin and fine; the elytra are shorter and broader; the elytra have prevailing light-colored spots formed by light-yellow hairs; they are a lot denser and irregularly shaped; dark spots formed by dark-brown hairs are also of irregular shape; they are a lot smaller that on the nominal form; the new subspecies has sparser dimples on the elytra, which are shiner; hairs on the legs are slightly longer, significantly denser; at least twice thicker.

Material. Holotype (fig. 6), male, Bohemia 1966, Chlum u Tř., M. Sláma lgt.; 14 paratypes: 4 males, 5 females with same label; 3 males, 2 females, Třeboň, M. Sláma lgt. All specimens of *M. s. occidentalis* **ssp. n.** and *M. s. saltuarius* are preserved in Staatliche Museum für Naturkunde in Karlsruhe.

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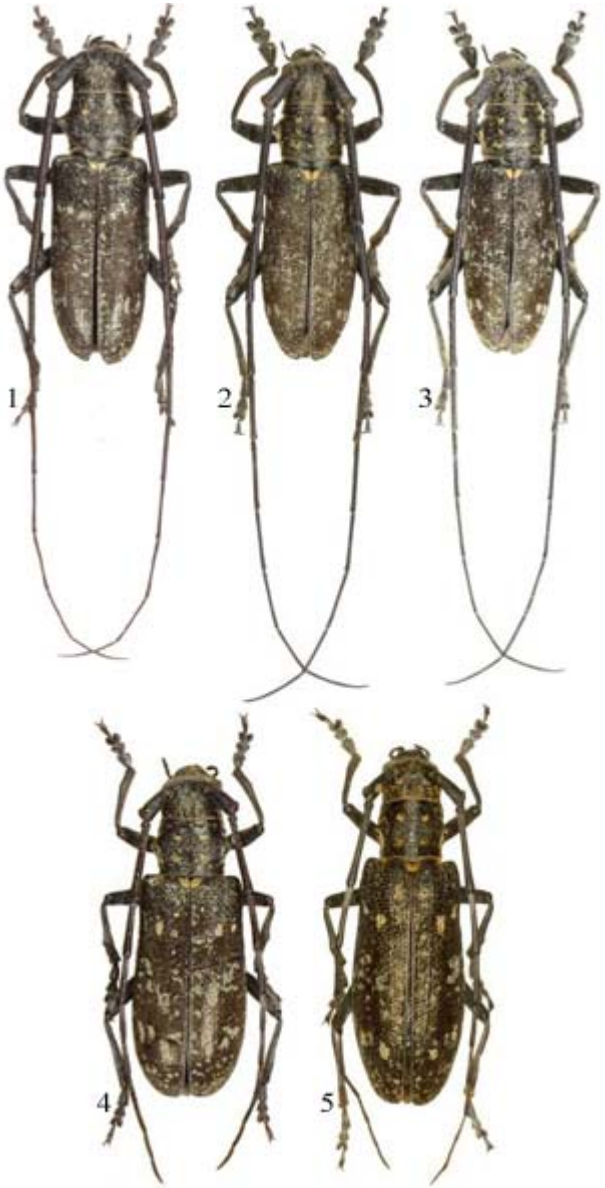
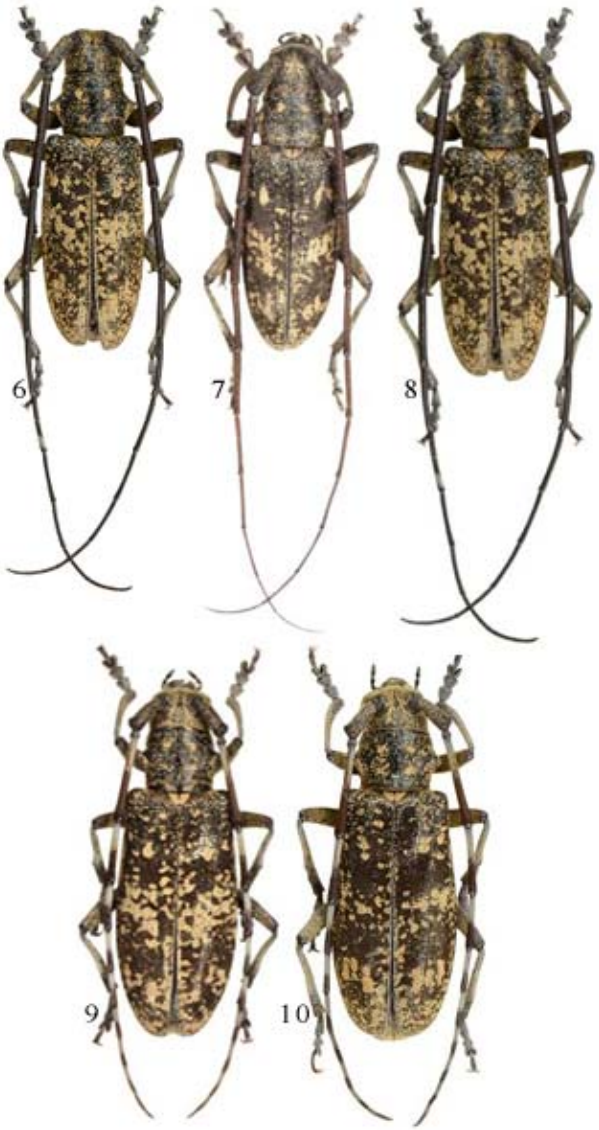


Figs 1-5. *Monochamus saltuarius saltuarius* (Gebler, 1830):
1-3 - males, Russia, Primorsky Region (Chuguevka); 5-6 - females from same locality.



Figs 6-10. *Monochamus saltuarius occidentalis* **ssp. n**.:
6 - Holotype, male, Bohemia 1966, Chlum u Tř., M. Sláma lgt.; 7-8 - Paratypes, males, Bohemia, Chlum u Třeboně; 9-10 - Paratypes, females from same locality.

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